SONIC-SDI

Ultrasonic Wind Sensor

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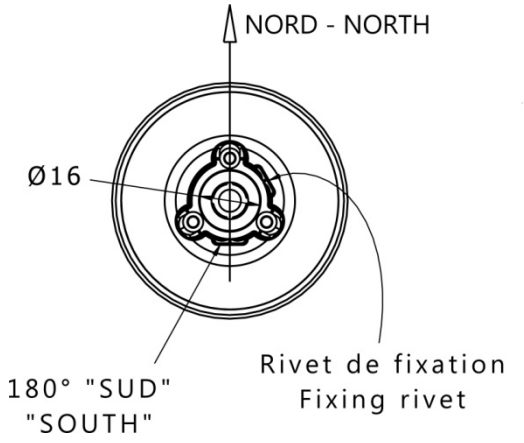
Reg. 42493307500022 / RCS Nantes – VAT : FR17424933075

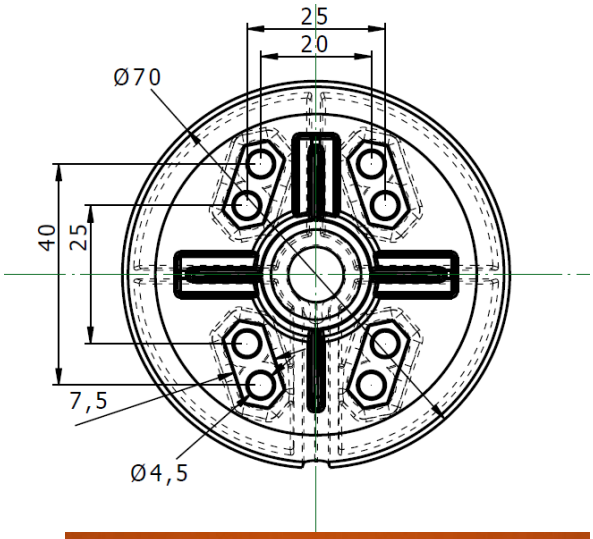
1. Installation

Prepare the surface for the mechanical installation. Use the template for the bracket's screwing.
Align the bracket in order to have the SONIC-SDI sensor heading to the north.
Run the cable down to the display's or datalogger interface, avoiding locations where other cables or equipment may produce electromagnetic interferences.

Sensor view from below



Bracket mounting template



Note : *for mounting on vertical surface, the brackets RA106BRACKET and RA106BRACKINOX from Glomex® are compatible.*
(not supplied - see example picture)

2. SONIC-SDI Technical Specifications:

Wind speed range	0.25-45 m/s (0.56-100 MPH)
Wind speed resolution	0.1 m/s (0.22 MPH)
Wind speed sensitivity	0.13 m/s (0.29 MPH) Independent of weather conditions
Wind direction range	0-359 °
Wind direction resolution	1°
Wind direction sensitivity	+/- 1 °
Communication	SDI-12 V1.3 without CRC
Power requirement	3 V to 35 V DC
Power consumption	2.9 mA AVG
Boot up delay	8 seconds
Dimensions / Sensor	Cylinder Ø 64 mm - height 61 mm
Cable	25 m standard delivery (approx..82')
Arm	Aluminum, 300 mm
Cable's weight	20 gr/m
Weight / Sensor + arm and base	200 gr
Weight / Sensor	100 gr
Operational temperature	5°F to +131°F
Environment	Sensor IP67
CE mark	EN 55022 EN 55024

3. SDI-12 protocol:

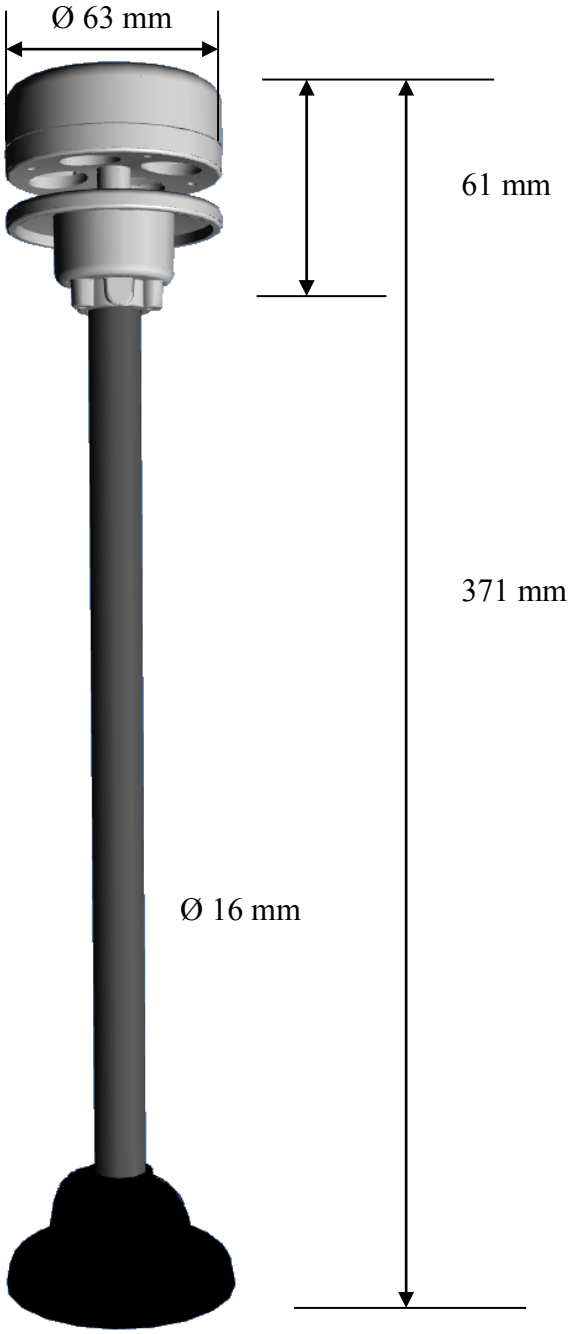
Baud rate 1200, start bit 1, data bit 7, parity event, stop bit 1

The available data are
- Average speed and direction over 10 minutes
- Minimum wind speed and direction for that period
- Maximum wind speed (gust 3s) and direction for that period
- Software version and serial number
- Data measurement quality rate from the sensor
- Data for sensor diagnostic (manufacturer use only)
- 2.6 mA consumption when sensor powered on
- 3.6 mA consumption during SDI-12 request
- Average power consumption is 2.9 mA

SDI-12 version 1.3 supported functions (www.sdi-12.org):
Note a = actual address / x = value / y = time laps in second /

?!	Address Query	Answer Address example = 5
a!	Acknowledge Active	5
aI !	Send identification	512LCJ_CAPTCV7SDI12014001
aAb !	Change Address	4A1 (new address =1)
aM1 !	Additional Measurements	50yy6
aMx ! (2 to 9)	Not implemented	50000
aV !	Start Verification	50yy6
aC!	Not implemented	500000
aC1!	Additional Concurrent Measurements	50yy06
aCx! (2 to 9)	Not implemented	50000
aD0!	Send Data Address+ Wind direction of min wind speed+ Wind direction of avg wind speed+ Wind direction of max wind speed+ Wind speed min+ Wind speed avg + Wind speed max	5+063+310+278+000.0+000.0+000.0
aDx! (2 to 9)	Not implemented	No answer
aR0!	Continuous Measurements Address+ Wind direction of min wind speed+ Wind direction of avg wind speed+ Wind direction of max wind speed+ Wind speed min+ Wind speed avg + Wind speed max	5+063+310+278+000.0+000.0+000.0
aRx! (2 to 9)	Not implemented	5

4. Dimensions



5. Warranty

Your SONIC-SDI is warranted against manufacturing defects in materials and workmanship for a period of 2 years from the date of purchase.
LCJ Capteurs will at its discretion, repair or replace faulty product free of charge excluding the cost of shipping. Proof of purchase shall be required in order for a warranty claim. All claims shall be made in writing to LCJ Capteurs and once it is accepted by LCJ Capteurs, the faulty product must be sent to LCJ Capteurs address in Vertou, France.

For further information, please visit www.lcjcapteurs.com where video presentations are available.

Remember to respect the local regulations: dispose non-working electronic equipment to an appropriate waste disposal center.